UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

Enforcement Confidential Materials Attached

MEMORANDUM

DATE: June 5, 2002

SUBJECT: Request for a Removal Action at the Oak Street Site, Taunton, Bristol County, Massachusetts - **ACTION MEMORANDUM**

FROM: Frank Gardner, On-Scene Coordinator
Site Evaluation and Response Section II

THROUGH: Steven R. Novick, Chief
Site Evaluation and Response Section II

Dennisses Valdes, Chief
Emergency Planning & Response Branch

TO: Patricia L. Meaney, Director
Office of Site Remediation and Restoration

I. PURPOSE

The purpose of this Action Memorandum is to request and document approval of the proposed removal action at the Oak Street Site (the site), which is located on Oak Street, in Taunton, Bristol County, Massachusetts. Hazardous substances present in buried drums and associated contaminated soils, if not addressed by implementing the response actions selected in this Action Memorandum, will continue to pose a threat to human health and the environment. There are no nationally significant or precedent-setting issues associated with this site, and there has been no use of the OSC's warrant authority.

II. CONDITIONS AND BACKGROUND

CERCLIS Identifier: MAN000103169 Site Identifier: 01AB
Category of Removal: Time-Critical

A. Site Description

1. Removal Site Evaluation

In November of 2001, the Massachusetts Department of Environmental Protection (DEP) notified EPA of the presence of buried drums at this vacant property and requested EPA's assistance in addressing the site. On November 21, 2001, EPA initiated a Preliminary Assessment/Site Investigation (PA/SI) which included walking the site with the property owner and representatives of DEP, reviewing site background information, sampling of surface soils, mapping magnetic anomalies using geophysical surveys, digging test pits, and sampling of buried drums. The PA/SI was concluded, and a removal action was recommended in a closure memo dated March 22, 2002.

2. Physical Location

The site is located on Oak Street, and is identified as parcel 2937-017 035-0039 on the City of Taunton Tax Maps. The coordinates for the site are approximately 41°53' 40" N latitude, 71°06' 50" W longitude. The site is located within a residential neighborhood and is abutted by a public housing complex to the west, Oak Street and an elderly housing complex to the south, private single-family homes to the east, and vacant lots and single-family homes to the north. An elementary school is located within 1/4 mile to the east.

3. Site Characteristics

The site is a vacant lot measuring approximately 1 acre. The site was used for the disposal of solid waste until approximately the late 1980s. Fill, construction debris, asphalt, scrap metal, and drums were disposed of at the site in an undocumented manner. Along the northern border of the site, the grade steeply drops approximately 30 feet down to an undisturbed wooded area. Erosion gullies on this slope have exposed buried debris, which indicates that the current raised topography of the site appears to be due to these landfilling activities. Although a chain-link fence running along Oak Street precludes vehicular access to the site, pedestrian access to the site is not restricted.

4. Release or Threatened Release into the Environment of a Hazardous Substance or Pollutant or Contaminant

Hazardous substances that pose a threat of release include, but are not limited to, the following:

- toluene up to 13,000,000 ug/kg,
- trichloroethylene (TCE) up to 11,000 ug/kg, and
- 3/4-methylphenol up to 1,100,000 ug/kg.

These hazardous substances are present in surface soils, buried drums, and contaminated soils surrounding the drums at the site. The highest concentrations were found in product encountered in and around the buried drums.

5. NPL Status

The site is currently not listed on the National Priorities List. A copy of the site investigation report has been forwarded to the remedial program for their consideration. At this time it is not clear whether there will be a need for remedial activity at the site.

B. Other Actions to Date

Both the City of Taunton and DEP have conducted site investigative and sampling efforts in the past. However, no cleanup actions have been conducted to date. This will be the first removal action conducted at the site.

C. State and Local Authorities' Roles

DEP is assisting EPA by providing site background information, technical input on the proposed removal action, and a list of regulations for consideration as applicable or relevant and appropriate. The City of Taunton is assisting EPA by providing extensive site background information, installing a gate in the chain-link fence to allow authorized vehicles to enter the site, and providing logistical support. Neither state nor local authorities have the resources to remove the hazardous substances abandoned at the site.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

A. Threats to Public Health or Welfare

Based on site conditions and information available on the hazardous substances present, the site poses the following threats to public health or welfare:

"Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants" [§300.415(b)(2)(i)].

Drums buried at the site and associated contaminated soils contain hazardous substances including, but not limited to, toluene, trichloroethylene, and 3/4-methylphenol. Although limited fencing is present to exclude vehicular access, pedestrian access to the site is unrestricted. Those who enter the site may be at risk of exposure to these hazardous substances.

"Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release" [§300.415(b)(2)(iii)].

The buried drums are in various states of decay and have already begun releasing hazardous substances into the environment, as evidenced by the presence of the same hazardous substances in surrounding soils. Continued erosion of the steep slope along the northern part of the site, if allowed to continue, may expose buried drums.

"The availability of other appropriate federal or state response mechanisms to respond to the release" [§300.415(b)(2)(vii)].

Neither state nor local authorities have the resources to remove the drums or the contaminated soils from the site.

The buried drums and associated contaminated soils at the site pose a direct contact threat to local residents and others who may enter the site. This threat may be exacerbated as continued erosion on the northern part of the site may expose buried drums. According to 1990 census data, 669 people live within a ¼-mile radius of the site, and 3106 people live within a ½-mile radius. Those at risk may include children walking to the nearby elementary school and residents living in the abutting public housing units, elderly housing complex, and single-family homes.

Toluene, when absorbed through the skin or inhaled, can cause headache, nausea, eye irritation, and impairment of coordination and reaction time. High doses can cause dizziness or light-headedness and can have adverse effects on the kidneys.[1]

Trichloroethylene (TCE), when inhaled, may cause headaches, lung irritation, dizziness, poor coordination, and difficulty concentrating in the short term. Long term exposure can cause nerve, lung, kidney, and liver damage. Ingestion of TCE over long periods of time may also cause impaired immune system function and impaired fetal development in pregnant women, although the extent of some of these effects is not yet clear. Dermal

---

[1]Agency for Toxic Substances and Disease Registry (ATSDR), U.S. Department of Health and Human Services, Public Health Service, *Toxicological Profile for Toluene*, September 2000.

contact with TCE may cause skin rashes. In addition, TCE is believed to be carcinogenic.[2]

3/4-methylphenol is a member of a group of compounds known as cresols. Cresols can cause adverse health effects via ingestion, inhalation, or dermal contact. These health effects include abdominal pain and vomiting, anemia, liver and kidney damage, and irritation and burning of the skin, eyes, mouth, and throat. Cresols are classified as possible human carcinogens.[3]

B. Threats to the Environment

The site poses the following threat to the environment:

> **"Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants" [§300.415(b)(2)(i)].**
>
> Although the area is highly developed, there is a vacant wooded area that abuts the site to the north. The nearest surface water body is Cobb Brook and its associated wetlands, approximately 1/4 mile to the northeast. Hazardous substances in drums and soils at the site may pose a threat to ecological receptors which utilize the area or live in the surface water pathway.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances at or from this site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

---

[2]Agency for Toxic Substances and Disease Registry (ATSDR), U.S. Department of Health and Human Services, Public Health Service, *Toxicological Profile for Trichloroethylene* , September 1997.

[3]Agency for Toxic Substances and Disease Registry (ATSDR), U.S. Department of Health and Human Services, Public Health Service, *Toxicological Profile for Cresols*, July 1992.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed Action Description

At this time, it does not appear that there is a viable potentially responsible party (PRP) with the resources to conduct the removal action. Therefore, the removal will proceed as a fund-lead action. The removal action will protect public health, welfare and the environment from the threats identified in Section III by removing the buried drums and associated contaminated soils containing hazardous substances from the site.

Removal activities will include conducting a site walk with the cleanup contractor, securing the site, and conducting additional geophysical testing and test pitting to locate buried drums. Buried drums and associated contaminated soils will be excavated, sampled, overpacked, staged, and shipped off-site for disposal at approved disposal facilities. The depth of excavation will not extend past the ground water table. As the drums are exhumed, they will be carefully logged and inspected for any labeling information which may indicate their origins. Air monitoring will be performed at the perimeter of the site throughout invasive site activities. Since the hazardous substances present are volatile and the site is located within a residential area, it is anticipated that engineering controls may be necessary to address air quality issues. Such engineering controls may include applying foam to the excavation to suppress volatilization of contaminants or constructing a temporary shelter over areas being excavated. Areas disturbed by site activities will be restored to vegetative cover.

2. Contribution to Remedial Performance

Performing this removal action will contribute to remedial performance and protect public health and the environment by eliminating the potential for exposure to hazardous substances in buried drums and associated contaminated soils at the site and eliminating an ongoing source of contamination.

3. Description of Alternative Technologies

The use of alternative technologies with regard to off-site disposal options will be examined as the site work progresses. On-site field screening and analytical techniques may also be utilized for on-site waste characterization purposes.

4. Applicable or Relevant and Appropriate Regulations

The cleanup standards, standards of control, and other substantive requirements that have been identified to-date, are listed below, and are applicable within the confines of EPA Publication 540/P-91/011, "Superfund Removal Procedures: Guidance on the Consideration of ARARs During Removal Actions."

FEDERAL; ACTION-SPECIFIC

29 CFR Parts 1910, 1926, and 1904: OSHA Health and Safety Regulations

40 CFR Part 262 Standards Applicable to Generators of Hazardous Waste:

Subpart B - The Manifest
262.20 : General requirements for manifesting
262.21 : Acquisition of manifests
262.22 : Number of copies of manifests
262.23 : Use of the manifest

Subpart C - Pre-Transport Requirements
262.30 : Packaging
262.31 : Labeling
262.32 : Marking

Subpart D - Recordkeeping and Reporting
262.40 : Recordkeeping

40 CFR Part 264 Standards for Owners and Operators of Hazardous waste Treatment, Storage, and Disposal Facilities:

Subpart I - Use and Management of Containers
264.171 : Condition of containers
264.172 : Compatibility of waste with containers
264.173 : Management of containers
264.174 : Inspections
264.175 : Containment

40 CFR Part 268 Hazardous and Solid Waste Amendments Land Disposal Restrictions Rule

Subpart C - Prohibitions on Land Disposal
268.34 : Waste specific prohibitions - toxicity characteristic metal wastes

Subpart D - Treatment Standards

Subpart F - Prohibitions on Storage
268.50 : Prohibitions on storage of restricted wastes

40 CFR Part 300.440 Procedures for Planning and Implementing Off-Site Response Actions (Off-Site Rule)

49 CFR Parts 171-179 : Department of Transportation Regulations for Transport of Hazardous Materials

The OSC has requested in writing that the State of Massachusetts identify additional state ARARS for consideration by the OSC. Additional ARARs may be identified as the removal action progresses. In accordance with the National Contingency Plan and the EPA Guidance documents, the OSC will determine the practicability of complying with all identified ARARs.

5. Community Relations

Since the site is located within a residential area, EPA will remain involved with the community throughout the cleanup. EPA will coordinate closely with state and local authorities on community relations activities such as press releases, fact sheets, and/or public meetings.

B. Estimated Costs and Schedule

The OSC has prepared an independent government estimate of the cost associated with carrying out the proposed actions outlined above. A summary of this estimate is given below. The action is anticipated to be complete within twelve months. Costs are very rough, particularly with regard to the Emergency and Rapid Response Services (ERRS) contractor, because the following details necessary for a more accurate cost estimate are not known at this point (1) the actual number of drums to be exhumed, (2) the degree to which leaking drums have impacted surrounding soils, and (3) whether engineering controls such as temporary shelters will be needed.

Extramural Costs		
Cleanup Contractor		$1,000,000
START Contractor	+	$200,000
Subtotal		$1,200,000
25% Contingency		$300,000
Total		$1,500,000

Intramural Costs	+	$250,000
TOTAL PROJECT CEILING		**$1,750,000[4]**

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

In the absence of the removal action described herein, conditions at the site can be expected to remain unaddressed, and threats associated with the abandoned hazardous substances will persist.

VII. OUTSTANDING POLICY ISSUES

There are no known policy issues that are outstanding with respect to this removal action.

VIII. ENFORCEMENT

ATTACHED TO THIS DOCUMENT - FOR INTERNAL DISTRIBUTION ONLY

IX. RECOMMENDATION

This decision document represents the selected removal action for the Oak Street Site in Taunton, Massachusetts, developed in accordance with CERCLA, as amended, and not inconsistent with the National Contingency Plan (NCP). The basis for this decision will be documented in the Administrative Record to be established for this site.

Conditions at the site meet the NCP Section 300.415(b)(2) criteria for a removal due to the following:

> "Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants" [§300.415(b)(2)(i)],
>
> "Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release" [§300.415(b)(2)(iii)], and
>
> "The availability of other appropriate federal or state response mechanisms to respond to the release [§300.415(b)(2)(vii)].

---

[4]Approximate amount used for cost recovery purposes will be actual costs, for example, $1,750,000 x 1.2702 (current indirect rate).

I recommend you approve $1,750,000.00 to initiate the removal action proposed above, of which as much as $1,300,000.00 is from the EPA removal allowance.

APPROVAL: _____
DATE: 6/6/2002

DISAPPROVAL: _____
DATE: _____